

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously Amended) A smart card loading system for loading value over a telecommunications network onto a smart card, said smart card loading system comprising:

a mobile telephone handset in communication with said telecommunications network, said handset including a subscriber identification module, a card reader for communicating with a smart card, which is separate from the subscriber identification module of the mobile telephone handset, arranged to be inserted in said handset, and an input interface for indicating a value to be loaded onto said smart card, said handset being arranged to generate a request message to load said value onto said smart card;

a gateway computer arranged to receive said request message from said handset over said telecommunications network and to retransmit said request message;

a funds issuer computer arranged to receive said request message and to debit a consumer account associated with said smart card; and

an authentication computer arranged to receive said request message and to authenticate said smart card, whereby said smart card may be authorized to load said value.

2. (Original) A smart card loading system as recited in claim 1 wherein said telecommunications network is a wireless network.

~~3. (Previously Amended) A smart card loading system as recited in claim 2 wherein the card reader is a Europay-Mastercard-Visa type card reader.~~

4. (Original) A smart card loading system as recited in claim 1 wherein said authentication computer authenticates said smart card using a first cryptographic signature and generates a second cryptographic signature to authenticate a load response, whereby said transaction is secured.

5. (Currently Amended) A smart card loading system for loading value over a telecommunications network onto a smart card, said smart card loading system comprising:

a mobile telephone handset in communication with said telecommunications network, said handset including a subscriber identification module, a card reader for communicating with a smart card, which is separate from the subscriber identification module of the mobile telephone handset, arranged to be inserted in said handset, and an input interface for indicating a value to be loaded onto said smart card, said handset being arranged to generate a funds request message which includes an authorization request certificate;

a gateway computer arranged to receive said funds request message from said handset over said telecommunications network and to retransmit said funds request message;

D1 a funds issuer computer arranged to receive said funds request message, to authenticate said smart card using said authorization request certificate, and to generate an authentication response certificate for delivery to said smart card, whereby said smart card may validate said authorization request certificate through the mobile telephone handset and load said value, wherein the smart card is able to be removed from the handset to interface with a point-of-sale terminal through a contact interface with the point-of-sale terminal.

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6. (Original) A smart card loading system as recited in claim 5 wherein said telecommunications network is a wireless network.

7. (Original) A smart card loading system as recited in claim 6 wherein said funds request message is integrated with the Short Message Service (SMS) channel of said telecommunications network.

8. (Original) A smart card loading system as recited in claim 5 wherein in response to a successful load, said handset is arranged to generate a transaction certificate to be used for irrepudiation.

9. (Previously Amended) A method of loading value over a telecommunications network onto a smart card and transacting a purchase with said smart card, said method comprising:

receiving at a mobile telephone handset a request from a user to load a value onto said smart card inserted in said handset;

generating a funds request message which includes said value;

sending said funds request message over said telecommunications network to a funds issuer computer arranged to debit an account associated with said user;

generating a load request message including a first cryptographic signature;  
sending said load request message over said telecommunications network to an authentication computer arranged to authenticate said smart card;  
receiving a response message which includes a second cryptographic signature and an approval to load; and  
validating said second cryptographic signature;  
loading said value onto said smart card;  
removing said smart card from said handset;  
placing said removed smart card in contact with a point-of-sale terminal to provide a contact interface with said point-of-sale terminal; and  
using said point-of-sale terminal to debit said smart card to perform a purchase.

10. (Original) A method as recited in claim 9 wherein said telecommunications network is a wireless network.

11. (Original) A method as recited in claim 10 wherein said messages are integrated with the Short Message Service (SMS) channel of said telecommunications network.

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12. (Currently Amended) A method of loading value over a telecommunications network onto a smart card, said method comprising:

receiving at a mobile telephone handset with a subscriber identification module a request from a user to load a value into a stored-value application of said smart card inserted in said handset;

DZ opening a second application on said smart card capable of funding said stored-value application;

generating a funds request message which includes said value and an authorization certificate;

sending said funds request message over said telecommunications network to a funds issuer computer arranged to authenticate said second application and to generate an authentication response certificate;

receiving through the mobile telephone handset to the smart card a response message which includes said authentication response certificate;

② validating said authentication response certificate; and

loading said value onto said stored-value application of said smart card from said second application.

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13. (Original) A method as recited in claim 12 wherein said telecommunications network is a wireless network.

14. (Original) A method as recited in claim 13 wherein said messages are integrated with the Short Message Service (SMS) channel of said telecommunications network.

15. (Original) A method as recited in claim 12 further comprising:

generating a transaction certificate to be used for irrepudiation.